REQUEST FOR SINGLE PATIENT IND FOR COMPASSIONATE USE

Single Patient IND Protocol: Pancreatic GVAX® for Resected Adenocarcinoma of the Pancreas

Nontechnical Abstract

Cancer of the pancreas is the tenth leading cause of cancer in the United States with an estimated incidence of 29,500 new cases in 1999. It is also one of the most lethal malignancies. It is the fifth leading cause of cancer death with an estimated number of deaths in 1999 similar to the incidence rate. The death rate in pancreatic cancer is exceeded only by lung, colorectal, breast, and prostate cancer. Despite recent advances in the overall understanding of pancreatic cancer, improved imaging techniques to identify disease at an earlier stage, improved surgical techniques, and the use of adjuvant therapy (chemotherapy and radiation therapy that is given in addition to surgery when patients are expected to have a high likelihood of recurrence), the 1-year survival is still on the order of 20% with a median survival of 15 to 19 months for disease amenable to surgery and a 5-year survival of approximately 3% for all stages of pancreatic cancer combined. Only one drug, Gemcitabine has been approved by the FDA for this disease. Approval was based on a significant improvement in quality of life only.

Chemotherapy and radiation are used as adjuvant therapy in pancreatic cancer. This study will use immunotherapy after standard chemoradiation is complete. Immunotherapy is a type of treatment for cancer based on the idea that the immune system (the system in the body that fights infection) can be activated to destroy cancer cells that have grown undetected. A vaccine is a way of delivering an antigen (something that stimulates the immune system) to the immune system so that it recognizes the antigen as foreign and destroys any cells bearing that antigen.

Allogeneic pancreatic tumor cell vaccine consists of two types of pancreatic tumor cells developed from the tumor cells of patients with pancreatic cancer. The human GM-CSF gene was used to genetically modify the pancreatic cells. GM-CSF is a substance made by the body that helps the immune system recognize a tumor and destroy it. The vaccine cells were irradiated to prevent them from growing or dividing. The cells themselves are **not** radioactive. The cells are stored frozen until the day of vaccination. The total number of cells in each vaccination will be 50,000,000, divided into 16 injections, given in the thighs and arms. The choice of 16 injections for each vaccination is based on the volume of the vaccination and a finding that the body has a better chance to respond to the vaccine if it is injected into a number of different areas.

Following surgical removal of the pancreas and chemo-radiotherapy the patient will receive the pancreatic tumor vaccine. The patient will receive his first vaccination 4 weeks following completion of chemoradiotherapy. He will then receive an additional 5 vaccinations, for a total of 6 vaccinations, at three-week intervals.

The patient will be followed for toxicity at treatment visits (every 3 weeks) and at a follow-up clinic visit (4 weeks after the last vaccination). Laboratory monitoring will consist of a complete blood count, liver function tests, creatinine and serum electrolytes at each treatment and follow-up visit. Additionally, a history and physical examination, assessment of vaccination sites, and query for adverse events will be conducted at each treatment and follow-up visit.

All adverse events will be captured from the time of initial vaccination until 4 weeks after the last vaccination. Serious adverse events related to the study drug and all deaths will be reported to Cell Genesys, Inc., the FDA, and the NIH. Treatment with Pancreatic GVAX® will stop if any life threatening serious adverse events related to the study drug occur. Treatment will not be resumed if a life threatening serious adverse event occurs. If a serious adverse event (except if life threatening) related to the study drug occurs, treatment with Pancreatic GVAX® (CG 2505 and CG 8020) will be stopped. Treatment with Pancreatic GVAX® (CG 2505 and CG 8020) may be re-started if the serious adverse event resolves to a much less severe level within 3 weeks. Furthermore, if either of the other two ongoing studies of Pancreatic GVAX® is stopped due to toxicity concerns, treatment of the patient under this single patient IND will stop.

The toxicity data collected will be descriptive, characterized according to the National Cancer Institute Common Toxicity Criteria. Safety parameters, physical examination, hematology, and serum chemistry will be monitored.

During the first study of this vaccine in pancreatic cancer, local symptoms were experienced at the vaccine site, such as swelling and redness, around 2 to 7 days after vaccination. Progression-free survival will be monitored by periodic CT scans to assess recurrence of pancreatic cancer.